

**To:** Robin, George[Robin.George@epa.gov]  
**From:** Robin, George  
**Sent:** Tue 7/15/2014 10:09:17 PM  
**Subject:** (Ca. DOGGR) Oil regulators add 95 wells to review

<http://www.bakersfieldcalifornian.com/business/kern-gusher/x634492505/Oil-regulators-focus-on-95-injection-wells>

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## **Oil regulators add 95 wells to review**

**BY JOHN COX** Californian staff writer [jcox@bakersfield.com](mailto:jcox@bakersfield.com)

State regulators responsible for last week's emergency shutdown of 11 Kern County oil field injection wells are scrutinizing 95 other fully permitted wells they say may have contaminated protected ground-water.

Although the wells appear to have been exempted from the Safe Drinking Water Act decades ago, state Department of Conservation official Jason Marshall said by email Friday his agency is working with federal and state regulators "to determine whether those wells should be injecting into their target zones."

These 11 injection wells were ordered shut down by state oil regulators at noon July 7. All but two have served as disposal facilities, mainly for getting rid of produced water, the briny fluid that comes out of the ground along with oil. One of the wells also injected industrial waste. Two of the wells are listed as idle by the source of this information, the California Division of Oil, Gas and Geothermal Resources. All are in Kern County.

### **API No. 02942966**

Status: Idle

Owner: SOC Resources Inc.

Oil field/location: Mount Poso, north of Bakersfield

Zone: Vedder

Type of material injected: produced water

Injection volume: 13 million gallons in 1979; none since then

### **API No. 02966045**

Status: Active

Owner: Longbow LLC

Oil field/location: Comanche Point, south of Arvin

Zone: Santa Margarita

Type of material injected: produced water

Injection volume: 19 million gallons in 2013

**API No. 03046608**

Status: Active

Owner: Longbow LLC

Oil field/location: Comanche Point, south of Arvin

Zone: Santa Margarita

Type of material injected: produced water

Injection volume: 3 million gallons in 2013; none since then

**API No. 02914064**

Status: Active

Owner: Macpherson Operating Co. LP

Oil field/location: Mount Poso, north of Bakersfield

Zone: Olcese

Type of material injected: produced water

Injection volume: 7 million gallons in 2008; none since then

**API No. 02906644**

Status: Active

Owner: Redbank Oil Co.

Oil field/location: Edison, east of Bakersfield

Zone: Santa Margarita

Type of material injected: produced water, well water, water from a domestic water system, industrial waste

Injection volume: 42,000 gallons in 2013

**API No. 02975558**

Status: Active

Owner: R&R Resources LLC

Oil field/location: Edison, east of Bakersfield

Zone: Kern River

Type of material injected: produced water

Injection volume: 6 million gallons in 2013

**API No. 02912624**

Status: Active

Owner: Pace Diversified Corp.

Oil field/location: Mount Poso, north of Bakersfield

Zone: Pyramid Hill

Type of material injected: produced water

Injection volume: 8 million gallons in 2013

**API No. 02958273**

Status: Active

Owner: Pace Diversified Corp.

Oil field/location: Mount Poso, north of Bakersfield

Zone: Olcese

Type of material injected: produced water

Injection volume: 7 million gallons in 2013

**API No. 02950650**

Status: Idle

Owner: Pace Diversified Corp.

Oil field/location: Mount Poso, north of Bakersfield

Zone: Olcese

Type of material injected: produced water

Injection volume: 180 million gallons in 1984, tapering to 510,000 gallons in 1994; none since then

**API No. 03039980**

Status: Active

Owner: CMO Inc.

Oil field/location: Chico-Martinez, in western Kern County

Zone: (Not specified)

Type of material injected: Water from a domestic water system for "cyclic steaming" enhanced oil recovery, not for disposal

Injection volume: 1 million gallons in 2012

**API No. 03044445**

Status: Active

Owner: CMO Inc.

Oil field/location: Chico-Martinez, in western Kern County

Zone: (Not specified)

Type of material injected: Water from a domestic water system for "cyclic steaming" enhanced oil recovery, not for disposal

Injection volume: 220,000 gallons in 2013

It was unclear how many of the wells are in Kern or what might be done about them. Marshall would not elaborate, but a senior official with the State Water Resources Board suggested the wells' operators might be able to avoid closure orders by moving their injection work to deeper zones containing lower-quality water.

Word that regulators are scrutinizing roughly 95 federally exempted wells has come as Kern's oil industry is trying to cope with Monday's emergency closures, which halted production in some cases and, insiders say, caused more than a dozen layoffs.

The Department of Conservation said the 11 wells — all fully permitted — had to be shut down, analyzed and tested because, unlike the list of 95, they were never exempted from federal water act protections.

Industry people insist none of the wells threatens quality drinking water. They say many of the facilities inject wastewater into zones containing crude oil and natural gas. That would make the water unfit for drinking or irrigation even if it meets the dissolved solids measure of aquifers requiring protection.

The situation dates back to a 1982 agreement in which the U.S. Environmental Protection Agency gave the state Division of Oil, Gas and Geothermal Resources primary authority for regulating what are known as Underground Injection Control Class II wells.

California has about 42,000 of these wells, and most are in Kern County. Some 90 percent of

them are used for well stimulation such as the “cyclic steaming” technique common in western Kern.

Most of the rest are used to dispose of produced water — the highly saline, hazardous fluid that comes up along with oil during production.

The main alternative to injecting produced water underground is hauling it to an approved dump. Oil field operators say transportation and disposal costs often make that option financially unfeasible.

When the EPA’s agreement with DOGGR took effect in 1983, it came with a list of exempted aquifers — underground zones where injection had been permitted even though the water contained dissolved solids in concentrations totaling less than 3,000 parts per million, California’s traditional threshold. The federal standard for groundwater requiring protection is tougher: anything with dissolved solids totaling less than 10,000 ppm.

Getting an exemption to inject into an underground aquifer with total dissolved solids less than 3,000 ppm is a long and difficult process. Since the 1980s, it has been completed only a few times.

Friday’s email from Marshall, chief deputy director at DOGGR’s parent agency, the Department of Conservation, said a document from 1985 exempted aquifers not listed in the original 1982 agreement.

“That subset is about 95 wells, identified as (injecting) into aquifers that might be exempted,” he wrote. DOGGR, the EPA and the state water boards, he added, are working together to see if injection into the wells’ target zones is appropriate.

Marshall would not say how DOGGR came to focus on the injection wells or for how long it has done so.

The subject of California UIC Class II wells has been a touchy one since at least 2010.

That year, former State Oil & Gas Supervisor Elena Miller overhauled the division’s handling of injection well permits, resulting in strict and lengthy reviews by an understaffed agency.

Industry representatives complained the reviews were unnecessarily holding up oil work and stalling job growth.

In November 2011, Gov. Jerry Brown, under pressure from Kern politicians in Sacramento and Washington, removed Miller and her boss, Derek Chernow, acting director of the state Department of Conservation.

About the same time, an audit commissioned by the EPA criticized the state’s oversight of UIC Class II projects, alleging DOGGR was not adequately protecting groundwater. For the past two years, DOGGR has said it plans to introduce new rules for injection wells.

Jonathan Bishop, chief deputy director for the State Water Resources Board, said it seems unlikely any of the 95 wells exempted by the EPA will be shut down. But, he added, that decision will be up to DOGGR.

DOGGR officials declined to be interviewed for this story.

The EPA also declined to make anyone available for an interview. But it issued a written statement that it plans to oversee a broad review of DOGGR's underground injection program "to ensure wells have been appropriately authorized to inject within the boundaries approved by EPA."

DOGGR's action this month on injection wells has drawn complaints from industry and praise from environmentalists.

Les Clark, executive vice president of Bakersfield's Independent Oil Producers Agency, said the seven companies operating the 11 wells closed last week should have been given more time to address DOGGR's concerns.

"What they should have done is met with those people, worked through the process," he said.

But Andrew Grinberg, oil and gas program manager at environmental activist nonprofit Clean Water Action, said DOGGR's recent actions show the Safe Drinking Water Act "hasn't been enforced properly" in California.

"What we're starting to see now, and it really started with fracking in 2011 ... is a renewed level of scrutiny on (DOGGR) where they basically have to start enforcing the laws properly," he said.